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Haynes

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(54) **ARCH-BOUND RING SEAL AND RING SEAL SYSTEM INCLUDING AN ARCH-BOUND RING SEAL**

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CPC ***F16J 15/26*** (2013.01); ***F16J 15/441*** (2013.01); ***F16J 15/442*** (2013.01); *F16J 15/3244* (2013.01)

(58) **Field of Classification Search**

CPC F16J 15/3244; F16J 15/3488; F16J 15/44; F16J 15/441; F16J 15/442

See application file for complete search history.

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(57) **ABSTRACT**

A ring seal for a shaft includes a plurality of arc-shaped ring segments, each of the plurality of ring segments having a radially outer face, a radially inner face, a first axial side face, a second axial side face, a first end and a second end, a spring holding the plurality of arc-shaped segments in an arch-bound configuration, and at least one circumferential ramp in the radially inner face of each of the plurality of ring segments configured to generate an air cushion when a shaft rotates inside the ring seal. Also a ring sealing system including the ring seal and a shaft.

13 Claims, 4 Drawing Sheets